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Endoscopic ultrasound-guided colocolostomy for malignant transverse colon obstruction after failure of enteral stenting

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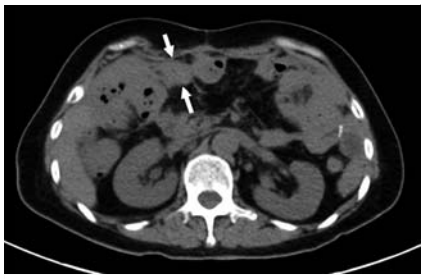
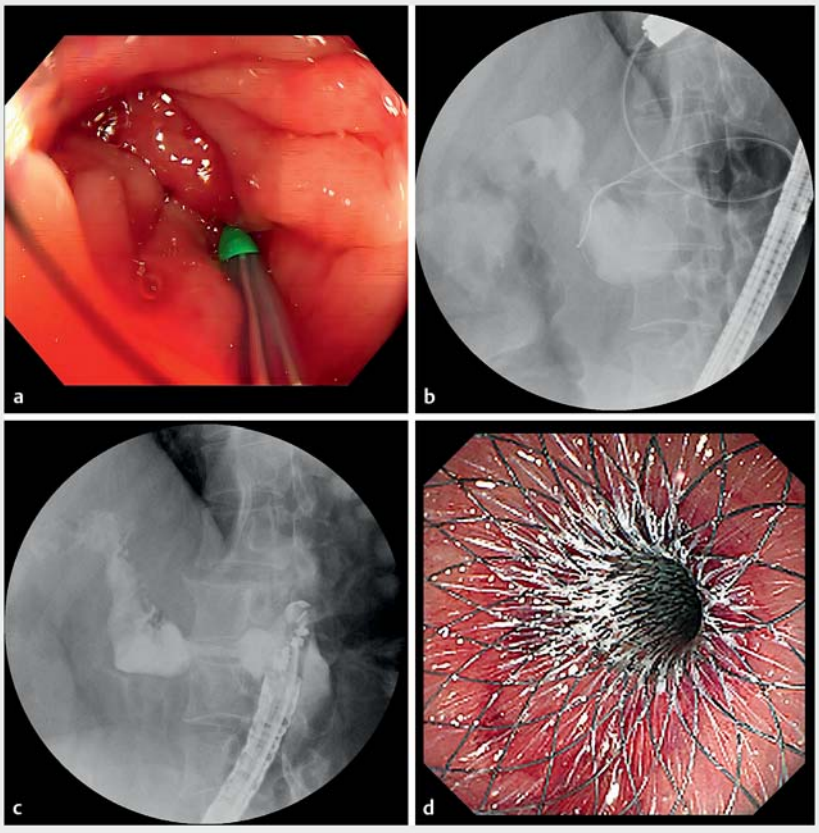


▶ **Fig. 1** Abdominal computed tomography demonstrating a long segment of stenosis in the transverse colon near the hepatic flexure (arrows).

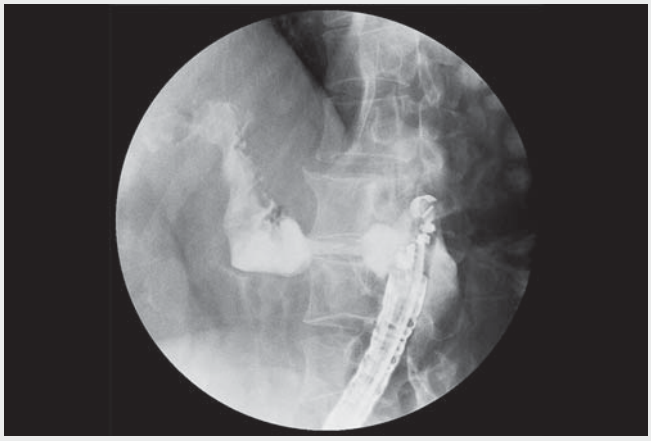


▶ **Fig. 2** Endoscopic ultrasound (EUS)-guided colocolostomy by use of a lumen-apposing metal stent (LAMS). **a** Colonoscopy revealed a severe stricture in the right colonic flexure that could not be passed with the colonoscope. **b** Saline solution was instilled through the nasobiliary tube to facilitate puncture of the transverse colon from the descending–sigmoid colon flexure under EUS guidance. **c** A LAMS was advanced into the hepatic flexure to create a colocolostomy. **d** Endoscopic view of the enteroenteral anastomosis created with the LAMS.

Developments in therapeutic endoscopic ultrasound (EUS) have allowed the endoscopic creation of gastrointestinal anastomoses for gastric outlet obstruction [1, 2]. However, this approach is rarely performed for the lower gastrointestinal tract because of the technical challenge of EUS-guided colocolostomy. Herein, we describe EUS-guided colocolostomy in a patient with malignant obstruction affecting a long segment of the transverse colon after failure of enteral stenting.

A 54-year-old woman with metastatic gastric cancer developed vomiting and abdominal distension 12 months after a Billroth II gastrectomy. Abdominal computed tomography demonstrated a long segment of stenosis affecting the transverse colon near the hepatic flexure with luminal dilatation and effusion in the ascending colon proximal to the lesion (▶ **Fig. 1**). Colonoscopy revealed severe stricturing of the transverse colon (▶ **Fig. 2a**). A guidewire was passed through the stricture; however, colonic enteral stenting was unsuccessful. A nasobiliary catheter was placed across the stricture and a linear echoendoscope (GF-UCT260; Olympus, Tokyo, Japan) was advanced into the descending–sigmoid colon flexure. Saline solution was instilled to facilitate puncture under EUS guidance from the descending–sigmoid junction (▶ **Fig. 2b**). The dilated lumen was punctured with a 19-gauge FNA needle followed by a 5-Fr cystoenterostomy needle knife (Cook Medical, Indiana, USA), which provided sufficient force to create a bypass across the long obstructing segment (▶ **Video 1**). A 16×15-mm electrocautery lumen-apposing metal stent (Axios-EC, Boston Scientific, USA) was then advanced into the hepatic flexure to form a colocolostomy (▶ **Fig. 2c, d**). Gastrointestinal radiography with contrast after the procedure demonstrated an unobstructed enteroenteral bypass. The patient was provided a liquid diet from postoperative day 1 and reported multiple subsequent bowel movements. A semiliquid diet was maintained until follow-up at 4 months after the procedure.

EUS-guided colocolostomy represents a novel endoscopic method of managing colonic obstruction. This approach allows aggressive endoscopic interventions in patients where colonic enteral stenting has failed.



Video 1 Endoscopic ultrasound (EUS)-guided colocolostomy for malignant obstruction affecting a long segment of the transverse colon, after failure of enteral stenting.

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Competing interests

The authors declare that they have no conflict of interest.

The authors

Muhan Ni, Shanshan Shen, Bin Zhang, Lei Wang
Department of Gastroenterology, Nanjing Drum Tower Hospital, Medical School of Nanjing University, Nanjing, Jiangsu, China

Corresponding author

Lei Wang, MD, PhD
Department of Gastroenterology, Nanjing Drum Tower Hospital, 321 Zhongshan Road, Nanjing, Jiangsu 210008, China
leiwang9631@nju.edu.cn

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